

List of substances	Limitations
1,3-Dihalo-5,5-dimethylhydantoin (where the dihalo (halogen) may be bromine and/or chlorine) that may contain no more than 20 weight percent 1,3-dihalo-5-ethyl-5-methylhydantoin (where the dihalo (halogen) may be bromine and/or chlorine)..	At a maximum level of 1.0 kilogram (kg) per 1,000 kg of dry weight fiber.
4-(Diodomethylsulfonyl) toluene (CAS Reg. No. 20018–09–1).	At a maximum level of 0.2 pound per ton (100 grams/1,000 kilograms) of dry weight fiber.
3,5-Dimethyl 1,3,5,2 <i>H</i> -tetrahydrothiadiazine-2-thione. Dipotassium and disodium ethylenebis(dithiocarbamate). Disodium cyanodithioimidocarbonate. <i>n</i> -Dodecylguanidine hydrochloride .....	At a maximum level of 0.20 pound per ton of dry weight fiber.
Glutaraldehyde (CAS Reg. No. 111-30-8). 2-( <i>p</i> -hydroxyphenyl) glyoxylohydroximoyl chloride (CAS Registry No. 34911–46–1).	At a level of 0.02 pound per ton of dry weight fiber.
2-Hydroxypropyl methanethiol sulfonate. 2-Mercaptobenzothiazole. Methylenebisbutanethiol sulfonate. Methylenebisthiocyanate. 2-Nitrobutyl bromoacetate [CA Reg. No. 32815–96–6] .....	At a maximum level of 0.15 pound per ton of dry weight fiber.
N-[ $\alpha$ -(Nitroethyl)benzyl] ethylenediamine. Potassium 2-mercaptobenzothiazole. Potassium <i>N</i> -hydroxymethyl- <i>N</i> -methylthiocarbamate. Potassium <i>N</i> -methylthiocarbamate. Potassium pentachlorophenate. Potassium trichlorophenate. Silver fluoride .....	Limit of addition to process water not to exceed 0.024 pound, calculated as silver fluoride, per ton of paper produced.
Silver nitrate. Sodium dimethyldithiocarbamate. Sodium 2-mercaptobenzothiazole. Sodium pentachlorophenate. Sodium trichlorophenate. 1,3,6,8-Tetraazatricyclo[6.2.1.1 <sup>3,6</sup> ] dodecane. 3,3,4,4-Tetrachlorotetrahydrothiophene-1,1-dioxide. Tetrakis(hydroxymethyl)phosphonium sulfate (CAS Reg. No. 55566–30–8).	Maximum use level of 84 mg/kg in the pulp slurry. The additive may also be added to water, which when introduced into the pulp slurry, results in a concentration in the pulp slurry not to exceed 84 mg/kg.
2-(Thiocyanomethylthio) benzothiazole. Vinylene bithiocyanate.	

(d) Adjuvant substances permitted to be used in the preparation of slimicides include substances generally recognized as safe for use in food, substances generally recognized as safe for use in paper and paperboard, substances permitted to be used in paper and paperboard by other regulations in this chapter, and the following:

Acetone.  
Butylene oxide.  
Dibutyl phthalate.  
Didecyl phthalate.  
*N,N*-Dimethylformamide.  
Dodecyl phthalate.  
Ethanalamine.  
Ethylene glycol.  
Ethylenediamine.  
*N*-methyl-2-pyrrolidone (CAS Reg. No. 872–50–4).  
*a,a'*-[Methylenebis[4-(1,1,3,3-tetramethylbutyl)-*o*-phenylene]] *bis*[*omega*-hydroxypoly(oxyethylene)] having 6–7.5 moles of ethylene oxide per hydroxyl group.

Monomethyl ethers of mono-, di-, and tripropylene glycol.  
Nonylphenol reaction product with 9 to 12 molecules of ethylene oxide.  
Octylphenol reaction product with 25 molecules of propylene oxide and 40 molecules of ethylene oxide.

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#### § 176.320 Sodium nitrate-urea complex.

Sodium nitrate-urea complex may be safely used as a component of articles intended for use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or holding food, subject to the provisions of this section.

(a) Sodium nitrate-urea complex is a clathrate of approximately two parts urea and one part sodium nitrate.

(b) Sodium nitrate-urea complex conforming to the limitations prescribed in paragraph (b)(1) of this section is used as provided in paragraph (b)(2) of this section.

(1) *Limitations.* (i) It is used as a plasticizer in glassine and greaseproof paper.

(ii) The amount used does not exceed that required to accomplish its intended technical effect or exceed 15 percent by weight of the finished paper.

(2) *Conditions of use.* The glassine and greaseproof papers are used for packaging dry food or as the food-contact surface for dry food.

#### § 176.350 Tamarind seed kernel powder.

Tamarind seed kernel powder may be safely used as a component of articles intended for use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or holding food, subject to the provisions of this section.

(a) Tamarind seed kernel powder is the ground kernel of tamarind seed (*Tamarindus indica* L.) after removal of the seed coat.

(b) It is used in the manufacture of paper and paperboard.

### PART 177—INDIRECT FOOD ADDITIVES: POLYMERS

#### Subpart A [Reserved]

#### Subpart B—Substances for Use as Basic Components of Single and Repeated Use Food Contact Surfaces

Sec.

- 177.1010 Acrylic and modified acrylic plastics, semirigid and rigid.
- 177.1020 Acrylonitrile/butadiene/styrene copolymer.
- 177.1030 Acrylonitrile/butadiene/styrene/methyl methacrylate copolymer.
- 177.1040 Acrylonitrile/styrene copolymer.
- 177.1050 Acrylonitrile/styrene copolymer modified with butadiene/styrene elastomer.
- 177.1060 *n*-Alkylglutarimide/acrylic copolymers.
- 177.1200 Cellophane.
- 177.1210 Closures with sealing gaskets for food containers.

- 177.1211 Cross-linked polyacrylate copolymers.
- 177.1240 1,4-Cyclohexylene dimethylene terephthalate and 1,4-cyclohexylene dimethylene isophthalate copolymer.
- 177.1310 Ethylene-acrylic acid copolymers.
- 177.1312 Ethylene-carbon monoxide copolymers.
- 177.1315 Ethylene-1,4-cyclohexylene dimethylene terephthalate copolymers.
- 177.1320 Ethylene-ethyl acrylate copolymers.
- 177.1330 Ionomeric resins.
- 177.1340 Ethylene-methyl acrylate copolymer resins.
- 177.1345 Ethylene/1,3-phenylene oxyethylene isophthalate/terephthalate copolymer.
- 177.1350 Ethylene-vinyl acetate copolymers.
- 177.1360 Ethylene-vinyl acetate-vinyl alcohol copolymers.
- 177.1380 Fluorocarbon resins.
- 177.1390 Laminate structures for use at temperatures of 250 °F and above.
- 177.1395 Laminate structures for use at temperatures between 120 °F and 250° F.
- 177.1400 Hydroxyethyl cellulose film, water-insoluble.
- 177.1420 Isobutylene polymers.
- 177.1430 Isobutylene-butene copolymers.
- 177.1440 4,4'-Isopropylidenediphenol-epichlorohydrin resins minimum molecular weight 10,000.
- 177.1460 Melamine-formaldehyde resins in molded articles.
- 177.1480 Nitrile rubber modified acrylonitrile-methyl acrylate copolymers.
- 177.1500 Nylon resins.
- 177.1520 Olefin polymers.
- 177.1550 Perfluorocarbon resins.
- 177.1555 Polyarylate resins.
- 177.1556 Polyaryletherketone resins.
- 177.1560 Polyarylsulfone resins.
- 177.1570 Poly-1-butene resins and butene/ethylene copolymers.
- 177.1580 Polycarbonate resins.
- 177.1585 Polyester carbonate resins.
- 177.1590 Polyester elastomers.
- 177.1595 Polyetherimide resin.
- 177.1600 Polyethylene resins, carboxyl modified.
- 177.1610 Polyethylene, chlorinated.
- 177.1615 Polyethylene, fluorinated.
- 177.1620 Polyethylene, oxidized.
- 177.1630 Polyethylene phthalate polymers.
- 177.1632 Poly (phenyleneterephthalamide) resins.
- 177.1635 Poly(p-methylstyrene) and rubber-modified poly(p-methylstyrene).
- 177.1637 Poly(oxy-1,2-ethanedioxy carbonyl-2,6-naphthalenediyl carbonyl) resins.
- 177.1640 Polystyrene and rubber-modified polystyrene.
- 177.1650 Polysulfide polymer-polyepoxy resins.
- 177.1655 Polysulfone resins.